**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION III**
**1650 Arch Street**
**Philadelphia, Pennsylvania 19103-2029**

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Virginia Department of Transportation
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Re: Draft Environmental Impact Statement for Interstate 64 Hampton Roads Bridge-Tunnel (HRBT), from Interstate 664 in the City of Hampton to Interstate 564 in the City of Norfolk, Virginia, December 2012, CEQ 20120387

Ms. Deem and Ms. Lopez-Cruz,

In accordance with the National Environmental Policy Act of 1969 (NEPA), Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above referenced study. The Virginia Department of Transportation (VDOT), in cooperation with Federal Highway Administration (FHWA), is evaluating options to improve inadequate capacity and geometric deficiencies along Interstate 64 from Interstate 664 in the City of Hampton to Interstate 564 in the City of Norfolk. The study area extends approximately 12 miles and includes the 3.5 mile long Hampton Roads Bridge-Tunnel.

As currently configured within the study area, the Hampton section has generally three lanes in each direction, the bridge and tunnel section has a bridge for each direction with two travel lanes entering and exiting the two tunnels, and the Norfolk section contains 2 lanes in each direction. The DEIS is considering three Retained Build Alternatives for further evaluation. The Build-8 Alternative would add four general lanes of travel by adding a new bridge-tunnel for east bound traffic and converting the existing roadways to west bound traffic. Build-8 Managed Alternative is similar to Build-8 but with managed lanes. The third alternative is the Build-10

Alternative which is similar to Build-8 with ten lanes of travel. This would be configured by a new bridge-tunnel with one westbound lane and five eastbound lanes.

EPA reminds the lead agencies that avoidance and minimization to Waters of the U.S. (WOUS) to the greatest extent practicable must occur prior to any conversation of mitigation for impacts to WOUS. While the preferred alternative has not been identified nor final design and resulting potential impacts have not submitted for a CWA 404 permit, based on the information provided, the three alternatives would potentially impact a similar amount of WOUS. A total of approximately 52 acres of wetlands and 18,200 linear feet of potentially jurisdictional waters were identified within the study corridor. The placement and construction of the tunnel would impact approximately 500 acres of aquatic habitat in addition to six acres of submerged Aquatic Vegetation (SAV). It is anticipated that effort will be made to bridge as great a portion of the aquatic resources identified as possible during the design phase of the project.

Based on our review of the DEIS, EPA has rated the environmental impacts associated with all of the action alternatives as Environmental Concerns ("EC") and the adequacy of the impact statement as "2" (Insufficient Information). This rating is due to the direct impacts of the proposed alternatives on aquatic resources, including streams, wetlands and floodplains, and terrestrial resources, including parkland. Environmental Justice (EJ) methodology for identifying communities of concern should be reviewed; other suggestions for EJ analysis are attached. Detailed comments on the DEIS are enclosed with this letter. A description of our rating system can be found at: www.epa.gov/compliance/nepa/comments/ratings.html.

Please consider the issues, questions and comments included in this letter and enclosure. Thank you for the opportunity to review and comment on the DEIS for Hampton Roads Bridge-Tunnel; EPA looks forward to continued work with FHWA and VDOT on this project and appreciates efforts for further avoidance and minimization of environmental and community impacts. If you have any questions or comments regarding this letter please feel free to contact Mr. Mark Douglas at 215-814-2767 or douglas.mark@epa.gov.

Sincerely,

Barbara Rudnick
NEPA Team Leader

Enclosure

## Technical Comments

### General

Reference should be made in the text of the DEIS to the technical memorandum and studies available.

### Purpose and Need (P&N)

The purpose and need provided in the DEIS includes addressing inadequate capacity for current and projected future needs as well as geometric deficiencies for the current configuration. These deficiencies include the height of the current tunnels which are 13'6" and 14'6". Current design standards call for a minimum of 16'6". However the three Retained Build Alternatives are utilizing the current tunnels for west bound traffic. This appears to go counter to the intent of the purpose and need justification.

### Traffic and Transportation

Upon review of the Traffic and Transportation Technical report, the traffic tolling and diversion information mentions the Monitor-Merrimac Memorial Bridge-Tunnel (MMMBT) as an alternative to cross the James River from Hampton to Norfolk areas. It is unclear if the proposed Patriot's Crossing (also known as the Third Crossing) is included in the analysis of forecasted traffic modeling. The DEIS should clearly show analysis and discussion of the interplay of the current and potential new or upgraded crossings between Hampton and Norfolk areas. It appears the two crossings were considered to be independent of each other; EPA suggests that Patriot's Crossing be considered as a reasonable alternative to incorporate in forecasted traffic analysis. This could be accomplished by considering the overall effect on the traffic if Patriot's Crossing were to be built. This could be accomplished by forecasting traffic with the option of utilizing Patriots Crossing (if built) compared to the traffic if Patriot's Crossing is not built and its effect on the other options for crossing between the Hampton and Norfolk areas. That analysis might influence the need or potential design for expanding the HRBT.

Additionally, EPA requests the study include in the traffic flow analysis the "new" Midtown Tunnel as part of Route 58 across the main stem of the Elizabeth River.

### Alternatives Development

As stated above, Patriot's Crossing project does not play a role in the formation of this project. As seemingly the HRBT expansion and the Patriot's Crossing are accomplishing the same purpose, they should be considered alternatives to each other and basically linked to one another physically. As stated in the Patriot's Crossing Environmental Assessment (EA) the projects purpose is "to develop and analyze intermodal alternatives that can work together to improve accessibility, mobility, and goods movement in the Hampton Roads metropolitan area to help

relieve the congestion that occurs at the existing I-64 HRTB." These two projects appear to be on a similar timeline for NEPA evaluation and should evaluate conditions with and without the other project. When compared to one another, one project may have fewer impacts to the environment while accomplishing the same goal thereby determining the Least Environmentally Damaging Practicable Alternative (LEDPA). If this project continues to the permitting stage, the Corps of Engineers are required to issue CWA 404 permits and Section 10 permits for alternatives that are the LEDPA. Without a fully vetted alternatives analysis, it will be difficult to identify the LEDPA.

EPA also suggests the DEIS study incorporate dedicated rail and bus transit analysis into the Build Alternatives, including the Build-6 alternative. TSM should be included in Build Alternatives.

**Natural Resource and Impacts**

Without knowing the preferred alternative or design details, it is difficult to offer more than generic avoidance and minimization comments at this time. Similarly without knowing additional details than what is offered in this section of the DEIS, it is difficult to offer substantive comments on the quality of wetlands and streams other than the overall amount of impacts to WOUS is seemingly large even for the length of the roadway. EPA reserves the right to provide substantive comments upon receipt of further information.

The EIS states that during construction, the applicable regulations for stormwater will be followed, but does not address how the proposed project will potentially affect the already impaired watersheds with the increased surface disturbance, filling of wetlands, increased impermeable surfaces, impacts from stream crossings, runoff, and potential pollutants from the roadway once the roadway is in use. EPA suggests the EIS discuss what efforts will be employed to avoid further impairment of the waterways and if need be, consider an alternates to avoid the impacts.

It is assumed that significant effort will be made in design, if a build alternative is selected, to include bridging and additional measures for avoiding and minimizing impacts to environmental resources. This would include the expansion of bridges, conversation of culverts to bridging, and all practicable measures to avoid placing fill in WOUS while still meeting the purpose and need of the project.

If the proposed project proceeds to the permitting process as one of the alternatives with the scope and scale of impacts, it would be assumed the mitigation required would be met through the use of banks for stream and wetland impacts. If banks are used, EPA suggests the mitigation sites used by the banks be within same HUC 12 or higher and located on the peninsula that the impacts occur. This will eliminate the chance for credits to be purchased for the use of off-setting the impacts to the expansion outside of the impacted area while still being located within a larger watershed. The significant amount of impacts to WOUS may lead to a situation where it may become difficult to mitigate for the impacts.

The current information provided appears to be dismissive of the need to further evaluate the scale and scope of the expansion will have on water quality. This is especially important that the study evaluate the potential of the subwatersheds as well as the Chesapeake Bay as a whole including the newly issued TMDL.

The EIS does not discuss or demonstrate how the proposed project will meet the TMDL allocations, offset any new or increased discharges or loads, or limit additional impairment of the waterbodies as a result of the impacts associated with the construction of the roadway and additional SW runoff after construction. The Chesapeake Bay Program Watershed Model could support a general analysis of the potential increase in nitrogen, phosphorus and sediment delivered to the Chesapeake Bay resulting from an additional impermeable surface at these county and river segment scales.

Federal agencies are also required to address issues raised in EO13508 "Protecting and Restoring the Chesapeake Bay Watershed" which includes restoring wetlands, streams, and riparian forest buffers, in addition to reducing nitrogen, phosphorous, sediment and toxic contaminants to meet water quality goals. The EIS should provide further information on how this project will comply with the Executive Order.

The EIS should to the greatest extent possible state amounts and intentions (eg for testing, handling, etc) for dredged materials and alternatives for disposal. Ocean disposal should not be the primary method if alternatives are available.

**Stormwater Management**

One of the tunnels was constructed in the 50's; the second was added in the 70's. During that period, and continued to the present, significant advancements in stormwater control measures have occurred. While some stormwater management practices may have been implemented as part of the upgrades, prior to 1980 there was very little stormwater management practices implemented for highway projects other than simply conveying runoff off the highway.

Stormwater runoff is a leading cause of surface water impairment in Virginia. EPA is asking for additional clarification and detail on the stormwater, potential types of systems and proposed locations, to upgrade systems from simple runoff conveyance. Please note that any stormwater management considered should not be placed in WOUS. EPA suggests that VDOT also consider stormwater practices that include measures to control runoff not just from new impervious areas but for existing pervious areas as well. EPA believes there are a number of stormwater retrofits that would promote opportunities for TMDL reduction that could improve water quality and quantity.

**Endangered Species/Invasive Species/Essential Fish Habitat**

There is need to coordinate with State and Federal agencies (especially Fish and Wildlife Service (FWS). It is stated that response was not received from some agencies; this information is needed in the document. Coordination should be updated during the project to account for changes in the listing over time. Please provide all coordination letters.

Please include any necessary steps to comply with Migratory Birds and bird protection; for instance, should there be seasonal moratoriums to avoid nesting.

Please state how the project will comply with EO 13112 on invasive species; such as monitoring, adaptive management, remediation, etc

**Air Quality**

In section 4.12.1 of the DEIS, background concentration numbers of carbon monoxide should be included in the table to show what is already there and what is occurring as the result of the project implementation.

**Climate Change Adaptation**

Any consideration or proposal to incorporate design features as adaptive to potential climate change should be stated and discussed in the FEIS.

**Indirect and Cumulative Effects**

The study area defined in the technical memorandum for assessment of indirect and cumulative impacts is relatively narrow; it may be beneficial to consider a wider area of influence of the project and impacts to resources. For instance, resources of Hampton Roads and Chesapeake Bay in the vicinity of the project will be impacted by several proposed transportation projects in the area (mentioned on page 6, plus others such as Midtown Tunnel), as well as other unrelated projects on the waterfront (such as those listed).

It would be useful to try to express the quantity of resources that have been lost or degraded from the baseline (such as the 1600s, as mentioned in the memorandum, or 1940's) to the present, and a quantified estimate of potential impacts of future projects. The memorandum presents a qualified discussion, but does not offer any estimate of quantity of resources lost from past activities, or potentially impacted by future.

Though it is understood that new growth will be done within the laws protecting natural resources, it has been historically true that resources have been degraded by development. This information can be used to identify resources that have been compromised by past activities, and may help target restoration and mitigation strategies. Additionally, as stated in 4.18.1 of the DEIS "Other than Patriot's Crossing, this study would have the largest contribution to

cumulative impacts on land use." EPA requests more detailed documentation in the EIS of the detailed secondary and cumulative effects of HRBT, Patriot's Crossing and other.

**Environmental Justice**

The methodology that was used to identify the areas of Environmental Justice concern is indicated to use a benchmark value of 10% greater than the percent minority and low-income populations for the area under evaluation. The methodology used seems to be at odds with the CEQ guidance on identifying areas of Environmental Justice Concern. CEQ states," Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." From, "Environmental Justice Guidance Under the national Environmental Policy Act', Appendix A Page 25. Without the benefit of the demographic information by census tract, it is not possible to assess the accuracy of the identification of census tracts of potential EJ concern with certainty. However, it seems likely that there are census tracts with populations of greater than 50 percent minority residents in the area; in those cases the 10% greater rule is not appropriate.

If there are census tracts with minority populations that are not above the 50 percent benchmark, and the 10% greater rule is applied, this reviewer would also need to see those calculations, and the manner that the 10% greater rule is applied. In fact, there is no direct justification for a 10% greater rule. Generally, those preparing assessments such as this one, simply determine areas to be of potential EJ concern if the minority or low-income population exceeds the state or county average.

This assessment should be identifying areas of potential Environmental Justice concern, identifying the potential for impacts on those populations, looking at potential mitigation of those impacts, and assuring that the at-risk population is meaningfully and appropriately considered in all aspects of this project. If one cannot identify the areas of potential concern with certainty, then the other goals may not be achieved.

Reference should be made to the availability of the technical reports for readers of the DEIS to pursue if interested.